

Appl. No. 10/550,469

Amendment dated July 15, 2008

Reply to Office Action April 15, 2008

# PATENT APPLICATION

Attorney Docket: 2895 PCT (203-3617 PCT US)

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Frank J. VIOLA

Examiner: Lindsay M. LOW

Serial No.: 10/550,469

Group:      Art Unit 3721

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Dated: July 15, 2008

For: **ENERGY STORED IN SPRING WITH CONTROLLED RELEASE**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

**AMENDMENT "B"**

**Maclarn:**

In response to the Office Action mailed April 15, 2008, Applicants respectfully request that the above-identified application be amended as follows:

Amendments to the Claims are reflected in the listing of claims which begins on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

CERTIFICATE OF TRANSMISSION UNDER 37 C.F.R. §1.8(a)

I hereby certify that this correspondence is being transmitted on the date below with the United States Patent and Trademark Office, PO Box 1450, Alexandria, VA 22313-1450, via electronic submission.

Dated: July 15, 2008

Christopher G. Trainor



**Amendments to the Claims:**

The following listing of claims will replace all prior versions and listings of claims in the application:

**Listing of Claims:**

1. (Previously presented): A surgical instrument comprising:
  - a handle having an elongate tubular member extending distally from the handle;
  - an end effector provided on a distal end of the elongate tubular member;
  - a driver mounted for movement relative to the elongate tubular member to operate the end effector;
  - an energy storage mechanism for storing and providing energy to move the drive rod; and
  - an actuation mechanism operable on the energy storage mechanism to control the rate of release of the energy stored in the energy storage mechanism; wherein the energy storage mechanism includes:
    - a spring and a piston operable on the spring;
    - a piston rod affixed to the piston and engageable with the driver; and
    - a gear structure on the piston rod operable with a gear structure on the driver to move the driver in response to movement of the piston rod.
- 2-4 (Previously cancelled).



5. (Previously presented): The surgical instrument as recited in claim 1, wherein the energy storage mechanism includes an energizing handle mounted to the handle and connected to the piston rod such that movement of the energizing handle compresses the spring.

6. (Original): The surgical instrument as recited in claim 1, wherein the actuation mechanism includes a fluid to contain and release energy stored in the energy storage mechanism.

7. (Original): The surgical instrument as recited in claim 6, wherein the actuation mechanism includes a valve to control the flow of the fluid.

8. (Previously presented): A surgical instrument comprising:  
a handle having an elongate tubular member extending distally from the handle;  
an end effector provided on a distal end of the elongate tubular member;  
a driver mounted for movement relative to the elongate tubular member to operate the end effector;  
an energy storage mechanism for storing and providing energy to move the drive rod; and  
an actuation mechanism operable on the energy storage mechanism to control the rate of release of the energy stored in the energy storage mechanism;  
wherein the actuation mechanism includes:  
a fluid to contain and release energy stored in the energy storage mechanism;  
a valve to control the flow of the fluid; and  
a bypass valve to allow movement of the fluid when the valve is closed.



9. (Original): The surgical instrument as recited in claim 1, wherein the actuation mechanism includes a brake system, operable on the energy storage mechanism to restrain and release energy stored in the energy storage mechanism.

10. (Original): The surgical instrument as recited in claim 1, wherein the actuation mechanism includes a flywheel operable on the energy storage mechanism.

11. (Original): The surgical instrument as recited in claim 1, wherein the energy storage mechanism includes a motorized mechanism for storing energy.

12. (Original): The surgical instrument as recited in claim 2, wherein the energy storage mechanism includes a motorized mechanism operable with the spring to compress and store energy in the spring.

13. (Original): A surgical instrument comprising a handle having an elongate tubular member extending distally from the handle;

an end effector provided on a distal end of the elongate tubular member;

a driver mounted for movement relative to the elongate tubular member to operate the end effector;

a compressible spring mounted in the handle;

a piston having a piston rod affixed thereto; the piston engageable with the spring in response to movement of the piston rod;

a gear mechanism on a first end of the piston rod, the gear mechanism being engageable with the driver to move the driver relative to the handle;



an actuation mechanism operable on the energy storage mechanism to restrain the spring and control the rate of release of energy stored in the energy storage mechanism.

14. (Original): The surgical instrument as recited in claim 13, wherein the piston and spring are mounted in a fluid tight cylinder pivoted in the handle.

15. (Original): The surgical instrument as recited in claim 14, wherein a fluid is provided in the cylinder and moveable from one side of the piston to another side of the piston within the cylinder in response to operation of the actuating mechanism.

16. (Original): The surgical instrument as recited in claim 13, wherein the actuation mechanism includes a brake operable on the gear mechanism.

17-20 (Cancelled).



**Remarks/Arguments:**

The present application has been reviewed in light of the Final Office Action dated April 15, 2008. Claims 1 and 5-16 are currently pending, claims 2-4 having been previously canceled. By the present amendment, claims 17-20 have been canceled.

Applicant appreciates the indication of allowability of claims 1 and 5-16.

Claims 17-20 stand rejected under 35 U.S.C. 102 (b), as being anticipated by U.S. Patent No. 5,645,209 to Green et al. (Green). Claims 17-20 have been canceled without prejudice by this Amendment. The cancellation of these claims is not to be construed as an admission to the viability of the rejections of the claims in the Office Action. Rather, the claims are being canceled to advance prosecution of this application. Applicant further reserves the right to file continuation(s) application to pursue the subject matter of the canceled claims.

Claims 17-20 have been canceled without prejudice thereby rendering moot the outstanding rejections contained in the Office Action.

Each of the pending claims is believed to be allowable over the art of record. Allowance of the claims is earnestly solicited. Should the Examiner believe that a telephone interview may facilitate resolution of any outstanding issues, the Examiner is respectfully requested to telephone Applicants' undersigned attorney at the number indicated below.

Please charge any deficiency as well as any other fee(s) which may become due under 37 C.F.R. §1.16 and/or 1.17 at any time during the pendency of this application, or credit

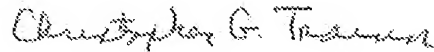


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any overpayment of such fee(s) to Deposit Account No. 21-0550. Also, in the event any extensions of time for responding are required for the pending application(s), please treat this paper as a petition to extend the time as required and charge Deposit Account No. 21-0550 therefor.

An early and favorable response in the merits is earnestly solicited.

Respectfully submitted,



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